

OLDEST BEE PAPER IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

VOL. XIX.

CHICAGO, ILL., APRIL 25, 1883.

No. 17.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

"Paraffine Comb" and "Glucose."

It is trite but *true*, that while "Falsehood rides on horseback, truth travels very slowly on foot." We are forcibly reminded of this upon looking over the last annual volume of Appleton's Cyclopædia, published by D. Appleton & Co., of New York. It is very evident that the compiler of that volume has been imposed upon by the notorious Professor Wiley, who, in June, 1881, originated the preposterous falsehood about "comb honey" being sold in New York, the combs of which were "made of paraffine, and filled with pure glucose, by appropriate machinery," etc.

On page 51, of the Cyclopædia mentioned, while enumerating the uses to which glucose had been put, we find the following:

"Glucose is used chiefly for the manufacture of table syrups and candies, for brewing, as food for bees, and for artificial honey. Glucose is very extensively fed to bees, which eat it with great avidity, and store it away unchanged as honey. It is also put up directly in trade as honey—with which bees have had nothing to do—being put up by means of appropriate machinery into artificial combs made of paraffine."

When this pernicious falsehood first appeared, it was extensively copied by many papers all over this country, and quoted by men of learning and influence, and we endeavored to counteract it, by showing its falsity and absurdity, and calling upon its author for proof. Being hard pressed, this scientific *joker* admitted the absurdity and falsity of his "story," but consoled himself with the idea, that people in general were too thick-

headed to see the "joke," as he stated in the *Indiana Farmer* last June, which was copied into the *BEE JOURNAL* of June 14, 1882, and commented upon.

Mr. Wiley's own version of the origin of the story [lie], and our remarks, are as follows:

Perhaps it may be well enough to give here the origin of the "paraffine comb" story which has appeared, I believe, in almost every publication in the country. The original appeared in the *Popular Science Monthly* for June, 1881, in an article entitled "Glucose and Grape Sugar," which I contributed to that number, and on page 254, occur the following words: "Bees eat glucose with the greatest avidity: or rather, they act as funnels by which the glucose is poured into the comb. For it is quite true that the honey made by bees which have free access to glucose differs scarcely at all from the glucose itself. But the quantity of honey which a bee will store away when fed on glucose, is truly wonderful. This gluttony, however, rapidly undermines the apiarian constitution, and the bee rarely lives to enjoy the fruits of its apparent good fortune. In commercial honey, which is entirely free from bee mediation, the comb is made of paraffine, and filled with pure glucose by appropriate machinery."

This last clause which, when written, was meant for a *scientific pleasantry*, came near throwing the whole bee world into epilepsy. It appears that persons who devote themselves to *BEE JOURNALS*, undergo a certain cerebral inspiration which renders them incapable of seeing a *joke*. The only point which they can appreciate seems to be the sting of a bee.

The rejoinder reminds us of an anecdote we heard many years ago, located in a rural district in Indiana. A well-to-do-farmer lost a very fine filly from his pasture-lot, and after several days' search found it snugly tied in the log barn of a distant neighbor of doubtful repute. The neighbor was indicted, tried, and found guilty of larceny; when the Judge asked what he had to say, why sentence should not be passed, he put in a plea that the animal was only

taken for a joke. The Judge inquired how far his barn was from the pasture lot, to which he replied, "about 5 miles." "Well," said the Judge, "that is carrying a joke too far; hard labor in the penitentiary for seven years." The writer above says he contributed to the *Popular Science Monthly* his "paraffine comb" story [lie] about a year ago, "which has appeared in almost every publication in the country." The latter part of the article, however, was only meant for a *scientific pleasantry*.

Do scientific men indulge in pleasantries which will cast a gloom over thousands of honest producers throughout the country, and depreciate the value of their product by creating a prejudice against it? For nearly a year this *scientific joker* saw his fabrication published in nearly all the papers in the country, and reiterated from across the ocean, and yet he lacked the manhood to affirm it a joke until "the *BEE JOURNAL* man" counteracted its influence by showing the falsity and absurdity of the article. Whether it be true, as has been often intimated, that the story was instigated by parties interested in the glucose traffic, in retaliation for the hostility of the bee men to their frauds, we cannot affirm; but we do believe it originated with no honest intention.

Now we would respectfully call upon Messrs. Appleton & Co., to make the correction in the next annual volume of their Cyclopædia, not only in justice to themselves, but for the sake of truth and right, and thereby aid, as far as possible, to counteract the injury they have already done the honey producers of America, by giving publicity to the fabrication of the self-admitted inventor of the pernicious falsehood; which he says he intended as a "joke" or "scientific pleasantry," but which has been taken in earnest, and copied and quoted as sober facts throughout the world.

When papers like the *Popular Science Monthly*, and books like "Appleton's Cyclopædia" are imposed upon, and unwittingly publish to the world as a fact, what this man, Wiley, well knew was an impossibility, and only the "silly imagination" of an unbalanced mind—is it to be wondered at, that ordinary papers and the common people should be "incapable of seeing the joke?" Evidently Wiley intended the story to make him famous, and cause a sensation! Has he not succeeded, in making fame? Surely; but it is, and should be, written—*infamous*! His "scientific pleasantries" are but falsehoods, both unscientific and *unpleasant*! While his "jokes" bear the closest affinity to the senseless jests of odiocy, and the foolishness of a maniac.

Postage and Money Orders.

According to the new Postal Laws, important changes are to be made during the next few months. In order to save a multitude of questions we will give the main features of the new regulations, which should be studied by all interested.

On and after Oct. 1, 1883, letter postage will be 2 cents for each half ounce or fractional part thereof, between all points in the United States. The rate will then be the same on drop letters and all others. No changes are made in rates on other classes of matter. On and after the 1st of July, 1883, you can obtain at any money order office, postal orders in sums of \$5 and under, by paying a fee of *three cents*. These postal notes will be made payable to bearer without corresponding advices. They will be payable at any money order office within 3 months of the date of issue. After the lapse of that time the holder can obtain the par value, only by applying to the Postoffice Department at Washington. On and after the 1st of July, 1883, you can obtain a postal money order for as large a sum as \$100. The present limit is \$50. The fees on and after that date will be as follows:

Not exceeding \$10.....	8 cents
From \$10 to \$15.....	10 cents
From \$15 to \$30.....	15 cents
From \$30 to \$40.....	20 cents
From \$40 to \$50.....	25 cents
From \$50 to \$60.....	30 cents
From \$60 to \$70.....	35 cents
From \$70 to \$80.....	40 cents
From \$80 to \$100.....	45 cents

The postal notes will be found more convenient in one respect than the fractional paper currency was, since they can be obtained for any number of cents under \$5. There will also be less liability to loss by theft than there was when fractional notes were used for transmission through the mails, especially if the department uses judgment in prescribing the size and form of the notes, and in selecting the paper on which they are to be printed. After the 1st of October the

cost of sending any sum under \$5, by postal note, will be 5 cents—2 cents postage and 3-cent fee.

This will be a great advantage to our subscribers, making a cheap and safe method of sending money in letters for subscription or advertising.

Transferring Bees.—Mr. G. B. Jones, Brantford, Ont., thus describes his method of transferring bees. The special feature of his hive is the arrangement of entrances, which are three in number—one in front, and one at each side, the former being twice as long as the latter. The front one is, of course, essential. The advantages of the others are by him described as follows:

In aid of transferring from an objectionable hive, proceed thus: Place the old hive 3 to 6 inches from the new, with its entrance opposite either side-entrance of the new; construct a closed passage between the two hives; place a piece of D. A. Jones' perforated queen metal over the inner side of the same side-entrance; close the other, leaving the front open; put in the necessary number of combs or foundation for the new hive. Now, drum the bees up from the old hive until the queen leaves it; shake them into the new hive; and, covering both hives, leave them for 21 days. The queen will be unable to get back to the old hive, and will settle down on the new combs, and the bees with her, excepting those which go back to care for the brood. As the brood hatches, it will come forward, and in 21 days all will be out. When honey is scarce, they will take it forward also. Now, remove the old hive, close the side entrance of the new; shake any bees remaining in the old hive in front of the new; and melt the old combs into wax, after extracting what honey they contained. This method has been practised by me with success one summer, and on as late as Sept. 20. Colonies may be doubled much the same way; for having the one common entrance they will soon unite, if scented alike artificially.

Reports from all the States are assuring. The past winter, though severe, has not been a disastrous one. But few losses are reported, and the prospect for a full honey crop is excellent. There is a good sward of clover, having been protected by the liberal amount of snow, and, with a fair amount of propitious weather, there need be no fears of having a poor honey harvest.

Mr. W. H. Furman, for 28 years a resident of Cedar Rapids, Iowa, and during that time one of the most enterprising bee-keepers of Iowa, has taken up his residence in Dakota.

The Bacteria.

We have received a pamphlet of 65 pages, on this subject, by T. J. Bur-rill, Professor of Botany and Horticulture in the Illinois University. It is a very interesting treatise on the nature, organization, effects and classification of Bacteria. The following extracts from it will give a good idea of the subject matter:

"It is the object of this paper to present, in language freed as far as possible from technical terms, the principal and most interesting facts now known about these silent working denizens of the earth, the air, and the water."

"We swallow them with our food, and at least some kinds sometimes retain their activity in the stomach and intestinal tube. It now seems certain that the latter is always inhabited by special kinds which have to do with the activities there in operation. In health the blood is usually quite free from them, but in certain diseases this too, as it rapidly courses through the arteries and veins, sweeps along in the current myriads of the minute but living and developing, ever active things, inappropriately called "germs."

"There is now, in certain cases, just as good evidence that bacteria cause diseases as there is that hawks destroy chickens, and the evidence is as inductively rigid in the one case as in the other."

We can supply it to any who may desire it at 50 cents.

Virginia for Bee Culture.

It will be remembered that sometime since Mr. E. C. Jordan, at the White Sulphur Springs, Va., advised bee-keepers to try that locality before going further South or West. A correspondent wrote him for particulars, and the reply was sent us for publication, and we have made the following digest of the questions and answers:

Improved farms here are worth from \$15 to \$100 per acre; the main crops produced are wheat, corn, oats, hay, potatoes, fruits, vegetables, etc.; the soil is slate, and there are iron mines here; the Shenandoah Valley is not subject to droughts, and we have no malaria; all kinds of small fruits do first rate here; thousands of cattle, hogs and chickens are raised here, and are shipped to Baltimore, Washington Philadelphia and New York; the best of butter, cream and cheese are produced here; bees obtain surplus here from March to November, and our honey is marketed in Winchester, Washington, Baltimore, Philadelphia and at home, and sells at from 20 to 25 cents per pound.

Advertisements intended for the *BEE JOURNAL* must reach this office by Saturday of the previous week.

CORRESPONDENCE

Rural New Yorker.

The Influence of Food.

PROF. A. J. COOK.

We often hear farmers remark that food has more to do with fine stock than does pedigree. While we do not think this is true, yet we must confess that good feeding is no mean factor in successful stock breeding. Long and careful breeding, indexed by a valuable pedigree, insures susceptibility, which makes great results possible, but only with proper care. A 50-horse power engine possesses great potency, but on one-fourth rations of fuel it would accomplish less than a 10-horse power. Yet it would be foolish to argue that fuel was more important than the style of the engine.

Among higher animals we have no evidence that food produces rapid structural changes. Food, selection and time will change the form, carcass, and even the habits, but only after long years of modification. Among lower animals we have some startling facts that show most graphically that food is sometimes a most powerful agent, able to effect a radical structural change in a very brief time. We all know that, in the main, the animal functions are very similar, even though studied in animals which are structurally wide apart. The now generally accepted philosophy that all animals have a common ancestry should lead us to give wise consideration to the peculiarities of lower animals, even in our treatment of the higher forms. If, then, we can show that food is potent to substantially modify the entire organism and life habits of bees, it should serve to exalt our estimate of its value and influence as affecting the higher animals. The same egg may, yea will, produce either a worker bee or a queen, the character of the progeny depending solely upon the character and quantity of the food consumed. If the food is rich and abundant the result is a queen bee. If it is less nourishing and stinted in quantity, a worker bee is the result. Even after the egg hatches, the young larva may be fed for three days in the meager way, then fed the richer food in ample supply, and a queen will result, though not so valuable a one as though fed the rich royal pabulum in generous quantities from the first.

Now, let us see what the changes are that are wrought by these improved good rations. The queen is longer and slimmer than the worker bees, and her ovaries are feebly developed, capable of growing daily from 2,000 to 3,000 eggs. On the other hand, there is a more feeble development of such organs as are used in procuring food and performing the various operations of the hive. Thus the queen has no pollen baskets, her

jaws, as compared with those of the workers, are weak, her tongue short, and her glandular system and stomach are more fully developed. Thus a simple modification of the food regimen produces sterility in the workers, which are only sterile females, while the organs that are more intimately connected with nutrition are more strongly developed. It would seem that the food is too slight to stimulate the growth of the ovaries, which is appropriated in a more decided development of the special organs which minister to nutrition. If food can do all this with bees, it certainly may be regarded as a very important element in the development and care of our higher animals.

Lansing, Mich.

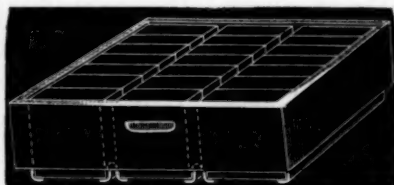
For the American Bee Journal.

Racks for Surplus Honey.

J. W. PORTER.

I notice some attempts are still being made to get over the difficulty I successfully accomplished years ago, and my plan was illustrated on page 240 of the BEE JOURNAL for 1878. Mr. Whitford's plan on page 58, I see is referred to by Mr. Heddon on page 95.

The purpose was to have a case that would be bee tight; one that could be readily tiered up (a point of great value here), and one that would hold the sections lengthwise of the hive (no other would do for me), and come right down on to the brood combs, with only bee space between sections and brood; one, too, that would admit of long separators of wood. All



Rack for Surplus Honey.

of these points are attained, and the continued use of this rack, for years, have been so satisfactory, that I think a real service will be done to republish the cut of it. It was freely contributed to the fraternity. I had experimented much, and have seen nearly all, including Mr. Heddon's latest; which, while it has some valuable points, is open to serious objections. Mr. Whitford's mistake is in making his T supports solid. Made of X or XX tin, and so bent as to have them thus n, standing $\frac{5}{8}$ inch high, all the strength needed is obtained, and the space permits them to rest on a nail inserted at the apex.

Mr. Heddon asks about bee space. The tin angles are flush with the bottom of the case, and the case rests on strips $\frac{3}{8}$ wide, by $\frac{3}{8}$ thick, placed one at each end, transversely across the brood frames, tight to the ends of the hive. Now, with this arrangement it matters not if the bees build wax bridges in bee space, prying between the case and transverse stick, separ-

ates all without displacing or lifting a comb below. They can be made to fit any hive. At one time I considered it a good advantage to use the deep, wide frame, with hanging separators, and with some bees. Much more can be done with them than with any case. Because of their use in Langstroth frames, I adopted the size of $4\frac{1}{4} \times 5\frac{5}{8} \times 2$ sections; six just fill the frame.

My cases are made to take 18 of them. The separators are notched to let down in the middle tins to bee depth. Five separators only to 18 sections, and each one movable, and of wood or tin may be used. I much prefer wood.

The T should be stamped not hammered. That is done by slitting an oak or hard wood block, strips of tin, $1\frac{1}{8}$ inches wide, are cut and bent slightly into the slot. Then reversed and forced by a lever into the next slot, and they are finished in the shape of this U. An iron or steel square blade of equal thickness is used under the lever. Tinsmiths can form them, but false bends damage the strength greatly.

Charlottesville, Va., Feb., 17, 1883.

Translated from Bienenvater by A. R. Kohnke.

Wax—Tests for Proving its Purity.

PROF. F. F. RESCH, S. J.

What is wax? To the uninitiated this may seem a very superfluous question; but the fact that there are a number of natural products going by that name, demands accurate determination of the kind. For instance, in some churches the ritual directions are to use wax candles at certain ceremonies; the ordinance also specifies of what kind of wax such candles must be made, viz.: "beeswax;" but that is as far as the ordinance specifies. Hence, it is customary to use the product of the native bee, in the different countries where such candles are used; in Europe, it is the common or German bee, or the Italian; in Syria, the Syrian; in Cyprus, the Cyprian; in the East Indies, *Apis dorsata*, *floreae*, *Indica*; in South America, the species *Gothuir*, *Melipona*, which furnish the wax. It appears that the wax from all the different species of bees possesses the same chemical and physical properties.

For the sake of convenience it has been found necessary to classify wax under the following heads: Beeswax, vegetable wax, and animal wax. On comparing the elementary constituents of the different kinds, we find them to be composed of carbon (C), hydrogen (H), and oxygen (O) in the following average proportions:

Beeswax...C, 81.70, H, 13.26, O, 5.04
Veg. wax...C, 71.61, H, 12.38, O, 16.01
Min. wax...C, 85.70, H, 14.30, O, 00.00

As beeswax, to a great extent, is adulterated, the description of a few handy tests may not come amiss.

Pure beeswax has the following properties: At 30° C, it may be kneaded; between 60° and 70° C, it melts. Its specific gravity is between 0.960, 0.969. A higher or lower spe-

cific gravity indicate adulterations with foreign substances.

Pure wax, when melted, appears as a clear, slightly yellow liquid, and, if put into hot water, should not dissolve the same, nor leave any sediment. This is one of the most important tests, and in order to better observe changes of transparency, or a sediment, should be made in a test tube. But it does not follow that the wax is pure, if no discolored water or sediment is noticed; hence, we have to apply other tests.

Take a piece of caustic lime and slack it in about four times its bulk of water. After it has well slacked, and been well stirred, it must be filtered through filter paper, using a glass funnel for this purpose. Of the now clear lime water obtained, add some to the still molten wax, stirring it well all the time. If now the water becomes whitish or cloudy, or even a sediment is noticed, it indicates adulteration by stearic acid, which combines with the lime, forming an insoluble precipitate of stearate of lime.

A still more delicate test may be performed by dissolving some of the wax in ten times its weight of chloroform, and then adding some of the clear lime solution.

The above are the principal tests. To detect other impurities, which are added to increase the weight and bulk of the wax, but do not combine with it, will not be difficult, and will show themselves by melting the wax. The following substances have been found to be added, to increase the weight: Water, starch, phosphate of lime, sulphate of lime, carbonate of lime, ochre and sawdust.

To adulterate wax the following ingredients are used: Stearine, paraffine, tallow, ceresine (or ozokerit), galipot, and vegetable wax.

To detect water, it is necessary to submit quite a large quantity of the wax to the test of melting, and keeping it at the boiling point, for sometime, to evaporate the water, without burning the wax, of course. Any decrease in weight indicates an admixture of water, the amount of which may be determined by the scales. In the same manner, viz.: by melting, other impurities may be detected, as most, or all of them, will be found as a sediment, either in the wax on the side next to the water, or will even sink entirely to the bottom.

Tallow causes wax to feel fatty or greasy to the touch. One cannot write on such wax with a piece of chalk, while on pure wax it can be done. A little piece of such adulterated wax thrown on a red hot stove, or other iron or burning coals, will emit a heavy, very disagreeably-smelling smoke.

For paraffine, the test is as follows: Take a small piece of the wax, put it into a watch glass, and pour sulphuric acid on. Pure beeswax will be charred, and the paraffine remain without being changed. The same test is applicable with reference to any kind of mineral wax, as ozokerit or ceresine.

If pure wax is put into either, about

half of it will be dissolved, whilst vegetable and mineral wax is entirely soluble in it; with this difference, that the latter, in part, forms jelly flakes. If wax, on being dissolved in either, loses more than half, it contains either vegetable or mineral wax.

Youngstown, O.

For the American Bee Journal.

Spring Management of Bees.

FAYETTE LEE.

I am located 60 miles west of St. Paul, on the Manitoba railroad. I have been in the bee business six years; the average yield, per colony, spring count, is 92 pounds. Our surplus honey is from basswood and golden rod. I do not claim that the way I manage bees is perfect, but by putting our experiences together we can learn something. When I first began keeping bees, I borrowed all the bee papers I could find, besides subscribing for three others.

I use a two-story hive with a loose bottom-board. I believe they are the best. I use the American hive, nine frames in each story. Early in April, I put the bees on their summer stands, and raised up every hive and cleaned the dead bees from the bottom board, and closed the entrances half an inch. The next thing is to know if they have honey. I take off the cover and roll back the quilt; if they have capped honey in sight, I close the hive and mark it: "honey for ten days." All hives not having honey in sight, I mark, "short of honey." Beginners should not open a hive when bees need feeding, and tear out all of the frames to see the queen, or ascertain if they have brood. The way I handle weak colonies is: I only take out one frame of comb, just as close to the brood as possible, and in its place I put a frame of honey from some heavy hive, or fill a comb with honey, or syrup made from sugar.

Careless handling is the cause of weak colonies swarming out in early spring; you disturb the bees and queen by handling the brood combs too much; it causes robbing, and out they go, to be killed by trying to enter other hives; tuck them up, warm, till there is plenty of honey and pollen coming in, and then it will do no harm to handle the combs, or look for the queen. I get all the brood possible by the time that fruit and dandelions bloom; by spreading the brood in strong colonies, and taking out now and then a frame of brood, to build up the weak ones. The best moth-trap is a few young turkeys or a pair of ducks; try them and see. As the bees get strong, give them wider entrances; it will not pay to unite weak colonies in early spring; do not think, because they are weak, that the queen is poor; give them brood and bees, and you will see plenty of eggs in a short time.

Early in May I want every hive full of brood, in order to get a large yield of honey from every hive, and a good

increase. I want nine frames of brood in every hive by May 25; and the way to get it done is by spreading the brood combs. I take the outside comb and put it in the centre of the brood-nest; I do this every seven days, until I get nine full of brood. I handle the brood very carefully. In April I have all hives full of brood. If honey is coming in, I get some swarms in May and June, but more in July. I put on the top-story as early as June 1. I have surplus combs in the top story, from the last season, and what I lack is filled by frames of foundation. The increase that gives me the most honey is one swarm from two. I put one frame of brood in the upper story, when I put it on; this causes the bees to go up there to work. I save the queen-cells from the first colony that gives a swarm. In seven days after, I take out all but one frame, and make as many nuclei as I have cells, and take two frames of brood and put with them from other hives. I do this every six days until they are full of brood; as fast as they swarm I return them to their own hive, and take three frames of brood from them, give them a new location, put the three frames of brood in an empty hive, and put it on the old stand. In this way I keep all strong colonies by adding brood. I do not like too much swarming in July; it spoils the honey harvest. By returning them, giving them a new location, and removing some brood, I keep them just where they will give us a large yield of honey. June swarms always pay me best. A swarm will fill its hive with comb in two weeks in June.

Cokato, Minn.

For the American Bee Journal.

Are Half-Pound Sections Desirable?

E. N. WOOD.

As much has been said about the size of sections, I have taken some pains to find out how our bee-keeping friends felt about the matter, in this section of the country, and I have not heard from one that favors the half-pound section, from parties that have a home market for all their product. We all ought to strive to hold to the present sizes of boxes and hives, as changes mean great expense and trouble. It seems to me that a general change in the size of honey boxes will soon bring new styles of hives that will be supposed to be better adapted to the use of the new box, and these new styles will catch many who are young in the pursuit, and as first impressions are strong, many of them would never change; many more sizes would be added to our now standard sizes of hives, frames and boxes. There are four general or standard sizes of boxes, $4\frac{1}{4} \times 4\frac{1}{4}$, $5\frac{1}{4} \times 5\frac{1}{4}$, $5\frac{1}{2} \times 5\frac{1}{2}$, $5\frac{1}{4} \times 6\frac{1}{4}$. The few sizes of boxes now in use has enabled the manufacturers to bring the prices down to the present very low rates, as they make large quantities of each size at a time, whereas, if the half-pound section comes into general use, I think the

prices of them all would be somewhat higher than at present; for get the craze (if I may so call it) once started and it will sweep over the country, and nearly every bee-keeper, no matter what the size his hive may be, will think he must come to the half-pound section as near as possible, and there would be as many sizes of half-pound boxes as there are different sizes of hives at present, and I fear more, as some would reduce their boxes in one way and some in another.

I think, perhaps, for a season or so, the half-pound sections may take well in the market, it being new, and somewhat of a novelty, but it will become a drug upon the market and be driven out of use, to the sorrow of those that have made expensive changes.

Again, I think one-pound is as small a quantity as most people want to buy. It is about the right size to put upon a plate without cutting in two, and if a pound or more of honey is to be bought they would certainly pass by the half-pound lots (for they have the appearance of too much tare) to the 1, 1½ and 2-pound boxes, and, again, I am afraid we cannot get near as large a yield per hive with these small boxes. Let us hear something of this from those that have used them.

North Lansing, Mich.

For the American Bee Journal.

Queens Reared in the South.

THOS. C. DAVIES.

On page 182 of the JOURNAL for April 4, Mr. T. S. Johnson, of Bogart, O., asks Mr. G. M. Doolittle and "any others who have had experience with Southern queens, if he thinks bees from a queen reared in the South are as hardy and well able to stand the long, cold winters of the North, as those from a queen reared here?" Being one of the "others" who have had some experience with Southern queens, I would like to give the following details:

In April of last year I received a dollar-queen from a Southern breeder, and in a few weeks after, a selected tested queen from the same person. I also received a selected tested queen, and a Syrian queen from a New York breeder. From those two selected queens, several fine queens were reared during July and August, and when preparing my bees for the winter, my queens were as follows: Two from the South, two from the State of New York, and 24 reared at home. Several of those were reared the season before the last, and one of them was reared in July, 1879. She had been such an excellent queen, that I had not courage enough to kill her last fall, and she was allowed to live as long as she could. About three weeks ago she died, I suppose of old age.

Twenty of those, including the two from the South, and the selected one from New York, were wintered on their summer stands, well packed in chaff. On April 3, they were all examined, and the two from the South

had their hives well stocked with bees and brood, and fully equal to the one from New York. In fact, those 20 colonies, except one, have wintered admirably, and they are now so equal that I cannot tell which of them is the best.

Of the 8 in the cellar, 6 came through well, but the other two are rather weak, and queenless. One of the queens died last week, and the other, three weeks ago. I united these two, and have sent to the Southern breeder, four days ago, for a queen to give them.

I do not know what has been the experience of others with Southern queens, except that of Mr. Doolittle's with his Texan queen, but I must say that I am well pleased with them so far. I believe with Mr. Doolittle, that "there is a difference in bees about wintering," but can hardly believe, at present, that it is due to the part of the country where they are reared. I sincerely hope that the bee-masters, by "studying and experimenting," will succeed in getting more light on this inequality of different colonies regarding wintering, before another cold winter comes.

Pittsburgh, Pa., April 11, 1883.

For the American Bee Journal.

Bee-Keeping in Florida.

C. H. LAKE.

As many bee-keepers throughout the country are turning their attention to this State, and being in communication with several prominent bee-keepers already located there, through whom I have gathered the information herein contained. I give it, thinking it might be of service to those about to locate there. For the past three years I have been thinking of removing there permanently, owing to the fact I am of a consumptive family, and suffer extremely with lung difficulty, especially in cold winters in this latitude.

There is a belt of country along the east coast, rightly termed the "Bee Belt." Ten years ago bee-keeping was an unknown industry there, and scarcely a dozen colonies could be found among the few families who then inhabited that portion of Florida. This "belt" commences about opposite Port Orange, extending South as far as Oak Hill, a distance of 125 miles, or thereabout.

Thousands upon thousands of acres of marsh are there covered with the black mangrove, the best and greatest honey producing plant known in Florida. Within this radius the black mangrove predominates, while above the head of Indian river, the red mangrove grows almost exclusively, which, I believe, is not a honey-producing shrub.

This "belt" offers superior inducements to bee-keepers, and when the fact becomes known, bee men will not be backward in availing themselves of the opportunity, by moving in and locating at favorable points. From recent letters from Mr. O. Olson, of New Smyrna, who is, with-

out doubt, the most experienced and successful apiarist in Florida, making bee-keeping his exclusive business, he informs me that it is "impossible to overstock the country." Mr. Olson makes the study of honey-producing flowers a portion of his business, and from "careful microscopic examination of the flowers of the black mangrove," he finds they contain "one-fourth of a drop of honey." When it is taken into consideration that this shrub bears thousands upon thousands of blossoms each season, one can get some idea as to its honey-producing qualities. It is asserted that 90 per cent. of the surplus honey gathered during the season (which lasts usually about ten weeks), is from black mangrove. While there are a great variety of the other honey-producing flowers, blooming at different periods throughout the year, among which can be enumerated the "saw and cabbage palmetto, gallberries, sweet bay, wild sunflowers, yellow jessamine, golden rod, orange bloom, snow vine, basswood, sweet gum, etc., etc." There is no reason why the honey cannot be gathered. With all these natural requisites of building up the colonies to perfection, by the time when the mangrove season opens.

There seems to be a great diversity of opinion among the Florida apiarists in regard to the cabbage palmetto. Some assert that "the bees neither gather honey or pollen from its bloom," while others are equally confident that "it equals in every respect the mangrove, as a honey producer;" while others affirm that "it yields pollen only." Different situations probably accounts for the varied results, like many of our own honey-producing shrubs, trees, etc.

Florida has its disadvantages, like all other great honey-producing States, and will, till the tide of immigration is sufficient to establish railroads and water conveyances. New Smyrna is 125 miles from the nearest express office, and for transportation the inhabitants have to "depend on schooners along the coast." A small steamer has been put on between Jacksonville and New Smyrna, for the winter, but is taken off in the spring; this steamer makes one trip a week, but all this will be removed as soon as business springs up, and the country becomes more settled.

Besides "being out of the world," we have the bear, dragon fly, several bee birds, and scores of other enemies to the bee to contend with, and, for that reason alone, we wish the entire country was settled up, while the bee moth reigns supreme, which is owing to the fact that what bees were kept by the old inhabitants, were in the old "gum or moth harbor."

A few more interesting items may not be amiss. W. S. Hart, of Hawks Park, has nearly 100 colonies of bees, and has the best out-fit, consisting of the improved machinery for carrying on the business, foundation machine, evaporating machinery, etc., that there is in Florida.

A. J. Packwood has started with 20

colonies, and has, during last season, taken several thousand lbs. of honey.

H. Olson and Mr. Wilson, from Ohio, seven miles south of New Smyrna, have 184 colonies, the largest apiary in Florida. They make bee-keeping their sole occupation, and are supplied with machinery for the manufacture of hives and everything pertaining to them, and work up an immense amount of lumber during the year. Their bees are mostly Italians, with some hybrids and a few blacks. This seasons crop foots up 25,800 pounds of the best honey we ever sampled.

In regard to the quality of Florida honey, Mr. C. F. Muth, of Cincinnati, who has handled most of the crop produced by these gentlemen, says "he considers their honey the finest ever placed on the market, and that it sells more readily than the white clover honey of the North."

L. H. Bivens, of Glencoe, has 37 colonies, and has shipped, this year, 2,000 pounds. M. B. Rolfe, also of Glencoe, has 8, which has produced 600 pounds.

R. S. Sheldon is one of our oldest bee-keepers. He has, for years past, shipped thousands of pounds of excellent honey, and last year his success was very satisfactory. In the spring he had 53 colonies, increased by artificial swarming to 84, and took thus far, Oct. 1, 6,300 pounds. From a natural swarm hived April 15, 328½ were taken, up to Aug. 15.

Mr. Morrison Lewis, of New Smyrna, is the pioneer in bee-keeping in Florida; that is, he was the first to make bee-keeping pay. He commenced in 1868 with one wild swarm, which he found in the woods, which did finely, increasing to several colonies, besides producing a large amount of honey, the second year, which showed Mr. L. what they were capable of doing, when properly cared for. He received 25 to 30 cents per pound for all his honey, for some eight years. He introduced the first movable comb hive and the first honey extractor into the State, and shipped the first barrel of honey, gathered in Florida, to New York, in 1876. From his 30 colonies, he has shipped, up to Oct. 1, 1882, over 3,000 pounds.

From a private letter received recently from Mr. O. Olson, he states: "I made six swarms from one colony, this season, and took from the old colony 440 pounds of extracted honey. I have, at last, found a climate where I like to stay, in spite of all the insects, which is a great drawback on this coast during June, July and August. A more pleasant and healthy climate cannot be found on earth, and I have lived in Europe and several of the States of America. Smyrna is a place of twelve families, and six miles distant, are twelve more."

I could continue this article to a greater length, but have given the important information sought after by those thinking of going into the business, in Florida. Any further information will be cheerfully given as far as in my power, or by addressing any of the above named gentlemen.

Baltimore, Md., Feb. 12, 1883.

For the American Bee Journal.

Experienced Students of Apiculture.

JESSE OREN.

I cannot see the force of the objections made by Mr. Heddon, page 73, against the views advanced by Dr. Besse in his "advanced step," in recommending diplomas to be given by the North American Apiarian College. It seems to me that Dr. Besse requires of the applicant for honors all that Mr. Heddon requires, and a little more. Mr. Heddon's diploma and "red tape circumlocution," as he calls it, would pass current with the society, and entitle the young man to an examination. Dr. Besse demands an experience of one year in all the manipulations of the apiary. Mr. Heddon, five months, or a bee year, if you please so to call it. Both men are on the same plane in this period of preparation. If Mr. Heddon was one of the examining committee, as he probably would be, and his line of students, with their "red tape," signed "Get there Success," should file into line before the committee, would he not approve them? Would he protest against Dr. Miller's, Doolittle's, Dadant's, Jones', Dr. Besse's, Grimm's "Get there Success?" We believe he would admit all the names to his *ad eundem* list of red tape. They are all well known to the bee world. I am glad they are known, and that they have spoken out. Red tape from any of them would pass a young man into my yard. Still I should prefer the combined red tape of all as being better than of any one alone. One might be all extracted, the other all comb, and half-pound sections at that, too. I might be suited with a mixed husbandry.

Some men are born poets, and must sing; others are born mutes, and cannot sing. There is this difference, also, among bee men. Some few miles from melives a man who has been "getting there annually" with his 15,000 to 2,000 pounds of honey. He is a local phenomenon, and only known at home. His name is "Get there Success;" but the North American Society knows nothing of him. He has paid \$100 per month for an apiarian assistant; and any red tape he should adopt would pass the owner into my yard as competent. We do not want a private monopoly of red tape, but rather, a good supply from every part of the country. In this way, many who are mutes, will come out of their holes and hold up their hands to be seen.

We hold that red tape does mean something; and that if Mr. Heddon has any, he is proud of it, and would not readily part with it. A graduate of Yale or of Ann Arbor does not imply an illiterate person by any means, but, on the contrary, such graduation is *prima facie* evidence of scholarship, the United States over. We do not expect to make such men as Sir Isaac Newton, Kepler and Leverrier by diplomas, nor, perhaps, such apiarist as Mr. Heddon either; yet this admission does not diminish the significance of diplomas. We are friendly

to Dr. Besse's "advance step," and believe the Society will so look upon the matter, when it meets in Toronto, next autumn. I have just given Mr. Heddon's and Mr. Jones' address to a young man who wishes to learn our business. I have given him a hope that he may be able to meet us at Toronto and pass examination next autumn. With the hope of success, he is going to work the ensuing summer. But like many lawyers and doctors, he may graduate and afterwards make an honorable living hauling manure and digging potatoes.

La Porte City, Iowa.

For the American Bee Journal.

Haldimand Bee-Keepers' Association

The Haldimand Bee-Keepers' Association held its third meeting on Saturday, March 31, at Nelles' Corners, Ontario, pursuant to adjournment.

Members present, E. DeCew, President; and Messrs. James Armstrong, R. Buckley, Robt. Coverdale, Ephraim Gee, Wm. Abbott, Joseph Carter, Fred. Mehenbacher, E. C. Campbell, R. Anguish, Ambrose Gloyd, James Gloyd, William Harrison, A. Vanderburgh, Wm. Kindree, David Byers, Henry Smith, Elijah Kindree, R. W. Beam, David Anguish.

Minutes of previous meeting read and approved.

The president gave a short address, after which the first question was taken up.

Two Story Hives.—Mr. Armstrong said it depended on the depth of frames; if the frames were shallow, two stories were an advantage; if deep, one story or 1½ stories was about the right thing. Mr. Buckley thought that when extracting, a double story was not necessary.

The Desirable Style of Hive Cover.—The president exhibited one which met with the approval of the members. It was very similar to those now used by D. A. Jones, and is deep enough to allow for a chaff cushion in winter.

Bottom Boards.—Caused considerable discussion. A number of members favoring loose bottoms; others preferring tight bottoms; the majority being in favor of the latter.

Spring Feeding.—The president said the best plan of spring feeding, was that of D. A. Jones, and explained how it should be made. Mr. Byers advocated feeding syrup strained through a cloth; it had worked well. Mr. Vanderburgh thought the best plan of spring feeding was to feed in the fall. Mr. Buckley gave his plan, viz: making a syrup of sugar and flour, pouring it into an empty frame, and putting it in the hive between the cluster. The secretary recommended linseed-cake meal as one of the best substitutes for pollen.

Is it Best that Bees Should Swarm?—Mr. Vanderburgh advocating dividing, as did Messrs. Armstrong and Buckley, and recommended having queens on hand for new colonies. Mr. Kindree thought if the object was to increase, natural swarming was best; if for honey, dividing was best. The

majority gave their opinion in favor of artificial swarming. Messrs. Wm Kindree and Wm. Abbott gave their plans for securing swarms.

How to Rear Good Queens.—Mr. Armstrong preferred rearing queens in a full colony, on full sized frames, and explained his method at some length.

How to Introduce Queens.—Mr. Armstrong recommended the Peet cage, keeping the queen confined until the bees became reconciled to her. The secretary mentioned the plan adopted by Mr. Simmins, of England, who introduced the queen on a frame of bees, with good success.

How to Secure Comb Honey.—Mr. Buckley advocated the use of metal division-boards and section boxes, in the body of the hive. Mr. Gloyd also spoke in favor of that plan, and said it was recommended by prominent bee-keepers. Mr. Kindree was in favor of section boxes in the upper story, leaving the lower story undisturbed.

Register of Each Hive—Its Value.—The president recommended the use of a register for each hive, so that he could tell the condition of his hives without the trouble of examining them every day.

Books and Periodicals.—The secretary advocated the reading of books and periodicals devoted to bee-culture, and thought no progressive bee-keeper should be without one or more good bee papers. In one number of the AMERICAN BEE JOURNAL he had obtained information worth more than the subscription price for a whole year.

Moved by Mr. Armstrong, seconded by Mr. Campbell, that each bee-keeper give a correct report of the number of colonies kept, and the number of pounds of comb and extracted honey from each colony, and what kind of bees.

It was resolved that the next meeting be held on June 16, at 10 a. m., at Cheapside, Ont.

The following statement will show the losses sustained during the past winter:

	Nov. 1882.	April 1883.
Edmund DeCew,	15	5
Robert Buckley,	38	33
James Armstrong,	32	31
Wm. Harrison,	2	2
Ambrose Gloyd,	16	15
Wm. Jack,	8	4
Joseph Carter,	10	9
Robert Coverdale,	6	5
R. W. Beam,	12	9
Wm. Kindree,	15	14
Henry Smith,	2	2
A. Vanderburgh,	9	9
F. Mehlenbacher,	1	1
David Byers,	13	12
Robert Anguish,	37	25
Ephraim Gee,	1	1
E. C. Campbell,	35	32
David Anguish,	4	3
Daniel Rose,	15	7

E. C. CAMPRELL, Sec.

P. S. By the above table it will be seen that the losses during the past severe winter have not been very high, and was caused principally by want of stores. I took mine out of cellar April 9, having been confined for over five months, without a flight.

Three colonies were dead for want of stores; the rest are in good condition, with the exception of two or three, affected with dysentery.—E. C.

For the American Bee Journal.

Remarks on Various Matters.

J. O. SHEARMAN.

The wintering problem seems to be pretty well worn; but not finally settled yet. My hobby has been packing in chaff, in which way I have been ordinarily successful. I wintered over 100 colonies, last winter and this, without the loss of a colony so far. I had all of my weakest colonies in the cellar, including some that were intended for doubling up; but the weak and strong all seemed to stand, in the cellar, about alike, except a weak one that had the dysentery; an examination showed that they had only uncapped honey left, though they had sealed honey in the fall. Also two nuclei, with reserved queens, starved. The temperature of the cellar was as near to freezing as I could keep it; it was below only once. I found that when the thermometer indicated near 40° (as often advised through the papers), they would become uneasy. I had only 27 in cellar. Those out of doors, packed in chaff, did well, so far, set close to the ground, on a little bed of straw, for under packing. That goes to show that it is not quite sure death.

I once thought that I had a good thing on them, if only they were covered by snow, and said the deeper the snow the better, with a sloping board over the entrance, of course; but now I have got bravely over that. The winter of 1880-81 was our test on that point. Those deep under the snow were very uneasy, while others situated on the south side of a hill, where the wind blew the snow all away from the front of the hives, came out bright, strong and healthy. That was a damp confinement, while, this winter, though snowed under, 2 feet or more, they came out nearly dry, with much better results. My conclusions are that a number of causes may induce dysentery: 1. Extreme changes of temperature, particularly if damp. 2. Thin honey, more especially if soured by changes of temperature. 3. Long confinement, if in conjunction with either or both of the above unfavorable conditions. 4. Undue breeding while confined, or anything that disturbs them while unable to fly.

On the half-pound sections, my advice is to put a variety of packages upon the market, to supply all kinds of customers; the half-pounds are well enough for part of the supply, but if all the honey was put up that way, it would be no higher in price than if all were in one-pound packages. The novelty helps the price at first.

During the past season I increased only from 90 to 107 colonies; though it was a noted season for swarming, for over two months. I did it, partly, by putting one swarm into another hive, from which a swarm had lately

issued, increasing the surplus room; and partly, before they got so feverish, by gradual extension of the brood-chamber; at the same time, giving more surplus room. The hive I use enables me to do the latter more readily, as the back of the brood-chamber is movable, the same as a division-board, and I can set them to work in three old-fashioned boxes, with two brood frames, or use 18 of the same sized boxes on the top of 12 brood frames.

I have run 12 colonies all through an entire season without swarming, increasing them to 18 by division, and giving them plenty of surplus room. That was four years ago, in a fast-swarming season; but it takes too much time for a large stock to increase a little at a time.

I had the above mentioned 12 colonies in a location where they gathered plenty of the red raspberry honey, while it was too wet for them to do much on the white clover. It was of very fine quality and flavor, though not so light in color as the white clover honey.

New Richmond, Mich., Mar. 6, 1883.

For the American Bee Journal.

Water for Bees in Winter.

EUGENE SECOR.

I suppose some of our Southern brethren, who have been basking in the sunshine for two months, and whose bees have been "out to pasture" so long that they have forgotten the past winter, will shrug their shoulders and thank God that they do not live in this borean land, when we tell them that we are just taking our hives to their summer stands. Well, I suppose the South is a delightful place to live in, but I have yet to learn that they accomplish more in any of the departments of industry during their long summers, than we in the North do in our short ones. A small portion of Texas came to the front last year in the production of honey, but year by year, the North supplies our leading honey markets, with as fine a quality as can be found this side of California. So, while we can successfully compete with them in the production of honey, perhaps we ought not to be so modest in discussing the wintering problems, which, undoubtedly is anything but interesting reading to them.

I have, to-day, taken my bees from the cellar, where they have been since Nov. 13. The last flight they had last fall, was on Nov. 10. This is the longest period I have ever kept them confined without a flight. My experience, to-day, seems to indicate that they could have endured a much longer night. I never before saw bees so cross in the spring. They are usually so glad to get out and fly, to void their feces, that they did not attempt to sting; but, to-day, I was compelled to don bee-vail and gloves, and, in spite of both, I am now far from "spring poor." There are no signs of dysentery. They did not "spot" their hives during the

winter, nor anything around the yard, in their flight to-day. My cellar was perfectly dark, without any ventilation, and ranged, in temperature, during the winter, from 32° to 48°, usually standing at about 45°. It was quite dry. From March 1, I have, several times, watered a part of them, a thing that I never practiced before, but it had the effect to keep them more quiet, and many of them were "just booming" to-day.

Now as to the results: One colony had starved to death. Four out of six, that were on the bottom tier, one foot from the cellar bottom, that had not been uncovered since putting in, and that had had no water, were dead. Only in one hive were the combs moldy, and all had sufficient stores. Those colonies which had been watered since March 1, were strong and healthy, and began to rob in less than an hour after having been set out.

Soft maples, willows, cotton woods, and elms are in bloom. The prairie anemones have been out for some days. The past winter has been one of the coldest known since the early settlement of the State. For about nine weeks from the 20th of December, it hardly thawed on the south side of the house, and the mercury hugged the zero point most of the time, occasionally dropping down to call on numbers 35 and 40. And for fully three months it was too cold for even a healthy bee to venture far from the warmth of the cluster. Fruit trees, in many parts of the State, have been injured; though in this locality we have not suffered in that respect. Bees have also wintered usually well.

Forest City, Iowa, April 16, 1883.

For the American Bee Journal.

Are Bees Taxable?

JESSE OREN.

MR. EDITOR:—On page 42 of the BEE JOURNAL for 1883, you are asked, "Are bees taxable?" Your answer, as given, is in accordance with the facts; but your conclusion is wrong, viz.: property of value is taxable property in Iowa. The statute of a State fixes and names the kinds of property on which a revenue shall be raised. In Iowa, bees are exempt by statute, and about all your patrons here are anxious that you shall so answer. Of course I know that it is not reasonable to expect you to know the laws, etc., of all the States. I have made this matter a special study years ago, and the matter was determined by the Attorney General about 15 years ago, when a special bill was got up by a member of the Legislature, exempting bees, etc. He said that bees were already exempt. But year after year we put in assessors and boards of supervisors who are ignorant of the law, and who reason that all property ought to bear its share of the public burden—good reasoning—but not Iowa law. But who knows any better than you do that the average assessor's judgment as to the value of a colony of bees on the

first day of January is a very poor judgment. He cannot set true values. Enclosed you will find a spicy digest of the subject written by a lawyer of Black Hawk County, Iowa. He had my assistance in the matter. We must, however, fight the battle over and over, year after year. The question is not, "Should bees be taxed in Iowa?" but, "Are bees taxable under our laws?" Please, hereafter, when asked that question, answer, "Not by the laws of Iowa, etc." The BEE JOURNAL, with that answer, will become notorious property, and will be preserved for the eye of the new assessor.

La Porte City, Iowa, Feb. 5, 1883.

ARE BEES TAXABLE?

MR. EDITOR:—Allow me to ask yourself and readers why it was that the board of supervisors of Black Hawk County, on Friday, Jan. 10, adopted Mr. Jenney's classification of taxable property for the year 1879, without first revising it so as to make it legal? I trust that they acted conscientiously in the matter. But will you please, or will somebody please, explain how and where they got their authority for placing bees upon that list? Perhaps our board did not know that they were exempt from taxation in Iowa? Perhaps they have some authority unknown to outsiders? Will somebody please rise and explain?

Now, Mr. Editor, "let us reason together," and see if we can find a little law which is, and ought to be plain, to every reasonable being, at least after it has been pointed out to them. I believe I can show by statute that bees are as plainly exempt as if they had been written in gilt letters at the head of the chapter of exempt property. First, what are bees? Are they vegetables? Are they minerals? Or, are they animals? To which of these kingdoms do they belong? Of course, you and everybody else will say that they are animals, of the insect order. Now, since they are animals, then, as animals, they are twice exempt under the statute. Exempt from taxation, first, by section 797 and 801 of Code of Iowa, 1873. Section 797, division 4, exempts from taxation "animals not hereafter specified." Section 801 enumerates the animals, viz.: "Horses, cattle, mules, asses, sheep, swine." Now, we see that it does not mention bees, nor does it intend for bees to be listed, or it would have mentioned them. At a glance we can see that to have mentioned all the animals exempt would have been an endless task, and when completed would have been a volume of itself, and only merited our ridicule. It might have read like this, viz.: From the animal kingdom there shall be exempt 20 species of the quadrumania, viz.: The buffalo, the elk, the deer, the cat, the dog, the mouse, etc. Of cetacea species, the oyster, the clam, etc. Of birds, the wren, the robin, the swallow, etc. Of reptiles, the lizard, the garter snake, the bull snake, etc. Of insects—30 species—viz.: The hornet, the wasp, the asp, the bee, the bumble bee, and

so on, *ad infinitum*. But the cobra-copella, the rattlesnake, the grizzly bear, the parrot, the seal, the golden fly of South America, owing to the vast amount of money invested in them for show purposes, shall be listed and taxed at twice their appraised value. Such might have been the form of the section had the Legislature attempted it. But they chose a wiser plan, and only enumerated those animals which were to be taxed, and exempted by section 797 all others—bees with the rest.

Again, according to Langstroth and other standard authority, the average life of a working bee, in summer season, is only six weeks, while it is a mooted question whether any worker ever lives to so great an age as seven months. Now, a bee being an animal, under section 821 (last clause), under "classification of property" for taxation, we find that "no entry shall be made on said books of any animal under the age of one year, except swine." The queen-bee is the only bee which lives to so great an age as one year. Her market value is 75 cents, and thousands are annually sold to A. I. Root, of Medina, O., at that price. We find by this section (821) that bees are again exempt. "Well," say some, "it is not the bee, it is the value." To this we again fall back on section 797, where we find "farm produce harvested within one year previous to the listing thereof," is exempt from taxation; and since all that is valuable in a colony of bees, except the 75 cent queen-bee, is harvested "within a year previous to the listing thereof," and comes in exempt along with thousands of bushels of wheat which the farmer may have in his granary or stack, the thousands, yes millions of dollars worth of wearing apparel, including valuable household furniture, thousands of dollars invested in swine under six months old, calves, colts, chickens, and the like, even down to a \$5,000 shawl, such as Mrs. L—— is said to wear, and other articles of a wardrobe proportionately expensive. From the list of exempt property, it is plain to be seen that it is not the intent of our law to tax all valuable property, for if it did, why exempt so many millions of valuables? In conclusion I would say that I have not talked with any lawyer, who, after a little reference, did not see the exempt condition of bees under our law. I might refer to Clark & Curtis, of Lemars, Ordway, of Waterloo, Judge Gilchrist, of Vinton, the two law firms in our own city, viz.: Bishop & Sharon and Chas. Bishop, and many others whose names I will not occupy time and space to enumerate.

Now, Mr. Editor, please excuse this space-consuming article, as my object in penning this is to aid in the support of the Constitution of the United States and the laws of the State of Iowa.

S. A. O.

[We are very glad to make the correction requested. Certainly, on this showing, in Iowa, bees are not taxable property.—ED.]

SELECTIONS FROM OUR LETTER BOX

Are Bees Taxable in Iowa?

Will you please state whether the laws of Iowa exempt bees from taxation? All agree here that if bees are animals they are then exempt. Some think they are insects.

PETER S. TRIEM.

Mt. Auburn, Iowa.

[We are informed that the Attorney General, some 15 years ago, decided that in Iowa bees are not taxable, and according to the laws of that State, they are not assessable. Apiarists in Iowa should show this to the new assessors.—ED.]

Honey Flow in Louisiana.

There has been a fine flow of honey; the bees are in splendid condition. I have been running for increase, and yet from 100 colonies I have taken 3,500 pounds of good honey. I shall start for the North about April 25, with a lot of colonies.

E. T. FLANAGAN.

Kenner, La., April 16, 1883.

A Beginner's Experience.

My father kept bees as long ago as I can remember, and I was always fond of them. About 5 years ago, I and a neighbor procured about a dozen each, and as we had heard of the new way of dividing, we divided them again and again, expecting to get rich in that way, but the winter cleaned us out of the bee business. Taking the advice of a friend, I subscribed for the BEE JOURNAL and bought Cook's Manual, and concluded to try again, after learning more about bees. I sold enough honey to pay for my bees, and all that I had over spent on them, and still have the bees left. They are in good condition now, and will be ready for the harvest when it comes.

Casey, Ill. D. R. ROSEBROUGH.

Wintering Bees, etc.

As dry sawdust is hard to get in the fall, I procured it dry, after harvest, and had plenty in the fall. I have tried chaff with success, but do not want it any more; it harbors mice, and gets damp very quickly. I must either clip the queen's wings or run a great risk of my neck, so I choose the former. I like a deeper frame than the Langstroth, for Canada. I want my frames crosswise; I think a division-board as needful as the hives. I use an outside box about 6 inches larger than the hive, with the entrance bridged, and packed around and on top (with movable side), pressed tight on sawdust. In frosty mornings, in the fall, I remove all outside combs, which can be done very fast, and feed up, on from 5 to 7 frames. Where do bees cluster in the fall and winter? Below the honey; the only

place for them, and just where they should, to give heat for sealing; they have warm honey all winter. I have yet to lose the first good colony prepared in the above manner. I have no carrying to do, in the spring, and bees are packed all the spring, and are not coaxed out, with every sunbeam, to get lost. Two colonies starved, in Langstroth hives, with honey in the hive; sometimes bees cluster in the centre, and getting to the end of the frames in a cold spell, they will starve with honey at the other end. Some of my bees have not flown for 147 days; neither do they seem to want to. They are in excellent condition, with about 5 inches of sawdust on the top. For such a terrible winter, bees that are packed have wintered well. My experience will not agree with that of Prof. Cook, as stated on page 85 of his Manual. In every case, with me, the field bees have decided what shall be done. Last summer I found them keeping the queen from drone cells, and even using violence to stop her from laying drone eggs. I learn from them as to whether there should be a second swarm or not.

CHAS. MITCHELL.

Molesworth, Ont., April 9, 1883.

Willows for Pollen.

I send a shoot taken from a bush or tree, for identification. I find it literally covered with bees, for the sake of the profusion of its pollen. I can liken their labors upon it to nothing else except what we have all witnessed at the rye meal basket. I take it to be a species of the willow, of which Dr. Barrett (1850) enumerated 100 species growing in North America.

WM. S. BARCLAY.

Beaver, Pa., April 17, 1883.

[It is one of the willow family, as you have surmized.—ED.]

My Experience With Bees.

I have had bees for more than 30 years, but never paid much attention to them until the spring of 1879, when I concluded to give them my attention (having quit active business), and to that end, I procured a book on the subject, read the science up, and thought I was master of the situation. Having 5 colonies of black bees I divided them according to instructions in King's Text Book, and succeeded beyond my expectations; in the fall I found myself possessed of 10 colonies in good condition for winter, and got some surplus honey. I put them in the cellar, and they came out all right in the spring of 1880. I again divided and had 20 in the fall, and got a small amount of surplus; all being heavy and in good condition for winter. I thought I would try out-door packing, and packed 10 in oat straw and chaff (after Mr. Heddon's plan), and 10 put in the cellar. March being so pleasant I set them all out, and unpacked those that were out, all being in good condition, so far as I could see; but April and part of May being wet, cold and windy, they commenced to die off very rapidly, leaving nice clean combs full of honey, so

by the middle of May I had but one weak colony left, which died in the fall, after all my nursing. With over 100 frames full, or partly full of honey, I concluded to try it again, and bought 12 colonies, part hybrids and part blacks, and got one colony from Mr. King, of New York. Increased them to 26, and got 335 lbs. of box honey, which I sold at 20 cents per pound, which paid for the 12 colonies bought. I put them away for the winter, packed in the summer stands, as before, all in good condition. They came out in the spring of 1882 without the loss of a single colony. Expecting big things, I bought \$47 worth of supplies, and increased my stock to 48, by my former method a little modified. Upon examination Oct. 1, I found them nearly all short of winter stores, some not having 5 lbs. of honey, and I got no surplus, except from one colony, and that gave me about 25 lbs. of inferior honey. I did not like to see them die, if I could help it, so I bought two barrels of coffee A sugar, and made it into sryup and fed them, so they averaged in weight from 18 to 30 lbs. I have packed them in plainer shavings. I suppose there never was a worse season for honey in our county before.

WM. B. MCCORMICK.

Uniontown, Pa.

Queen Nursery, Observing Hives, Etc.

Please answer the following questions in the BEE JOURNAL:

1. Seeing that queen nurseries are required for the purpose of having a supply on all occasions when needed, and few bees can be spared for such nurseries, how are they to be protected through the winter; it being necessary to have them strong to keep up heat for winter protection? As high a temperature being as necessary for a weak colony as a strong one, and the natural heat will not be sufficient, how is more heat to be created? I have never seen anything giving instructions on this subject, although Prof. Cook so strongly urges rearing queens.

2. In the observatory hive, as described by Prof. Cook, page 113 of the present volume of the BEE JOURNAL, which, of course, is intended to be in the house, study, or some such place, should not the alighting board be at an open window, for the egress and ingress of the bees, to prevent them coming into the room, where it is desired to see them? I suppose that, during the winter season, the observatory hive may become a queen nursery.

3. What plan must be taken to stimulate late breeding, as urged in Cook's Manual? He gives the advice, but not the information which is necessary to many; in fact to all who have not had the experience in that way. If the bees have plenty of honey, is there something else better for that purpose?

EDWARD MOORE.

Barrie, Ont.

[Prof. Cook replies to the above questions as follows:—ED.]

1. I suppose Mr. Moore means by queen nurseries the small colonies or

nuclei in which the queens are reared. Judge Andrews, of Texas, says queens can be kept caged indefinitely by putting the cage in strong colonies. He says even though the other colonies have queens, the bees will always feed the caged queens. Mr. Alley says in his book, the queens may be thus caged for long weeks, but that there must be feed in the cage; that the bees will not feed them. I have always kept the queens in the small hives or nuclei. By exchanging combs frequently, giving empty cells, the queens are kept active. With a good cellar nuclei can be kept over winter as well as full colonies. The chamber containing them must be small; either a small hive, or, better, the regular hive, with brood-chamber contracted by use of a division board. My brother has kept several nuclei in his cellar the past winter. All but one came through strong. That died of starvation.

2. My observing hive is on a board just outside the window. It is just high enough to be convenient. By lowering the upper sash I can lean on it and study the bees for hours without fatigue. My window is a dormer, so it shades the bees in summer and protects them from storms.

2. I think stimulative feeding is fully described in my Manual. We only need to feed a half pint a day, by the use of any of the feeders described. I think the Smith feeder, illustrated and described in my new Manual (just out) is the best.—A. J. COOK.

The Season in Georgia.

Spring has fairly opened with us at last, but bees are in a backward condition. February was mild and pleasant, and breeding progressed rapidly. March set in cold, and continued so with wet and inclement weather all through. Bees could do nothing, but dwindled fearfully; so by the 1st of April colonies, on an average, were not in as good condition as they were the last of February. Box hive beekeepers have lost heavily.

J. P. H. BROWN.

Augusta, Ga., April 20, 1883.

How to Press and Mount Flowers.

In the Michigan State Fair premium list (apiarian department) is offered a premium for the best collection of honey-bearing plants pressed and mounted, or in bloom. Will some one who knows please tell the readers of the BEE JOURNAL how to press and mount flowers?

W. Z. HUTCHINSON.

Rogersville, Mich.

Bees Still in Winter Quarters.

In the spring of 1881, I had 4 weak colonies, and 2 queenless; they increased to 10, and 1 nucleus, fall count; all were packed in chaff. The spring count of 1882, was 9, and 2 queenless. I had from them 500 lbs. of comb honey, and increased to 28; they were all packed in dry goods boxes, with clover chaff. The spring count of 1883, is 27 in splendid condition; I lost one, caused by old bees

and dysentery. My bees are still packed; I expect to leave them so until about May 1, or until the weather becomes settled and warm. My bees are all Cyprians, Italians, and albinos, and I am well pleased with them. I use the A. G. Hill hive, and think it a good one. We have some old fogies here, who keep bees in box hives and brimstone them, etc., and some of them have lost heavily this winter. I could not do without the BEE JOURNAL.

H. HANCE.

Bryon, O., April 16, 1883.

Bees All Right.

I have just unpacked my bees, and find nearly all in booming condition. My loss for the winter has been light. I packed, in my usual way, 165 colonies, and, to-day, I find 160 in good condition. Never did I ever see bees in better condition than mine now are. The hives are nearly full of bees, and in some I find brood in four and five frames, with capped drone brood. The weather has been fine for nearly three weeks. I anticipate a fine crop of honey. The white clover has never looked more promising than it does this spring. Success to the Weekly BEE JOURNAL.

L. J. DIEHL.

Butler, Ind., April 17, 1883.

North Carolina Bloom.

Apples are in full bloom, and clover soon will be. I lost 15 out of 100 colonies, last winter. My bees are very strong at this time, and promise great things, if we have a good season.

J. W. HINSDALE.

Raleigh, N. C., April 13, 1883.

Bees are Just Booming.

I wintered 42 colonies in the cellar, of which I lost 1; of 19 wintered on the summer stands, packed with sawdust, I lost none; leaving me 60 out of 61 colonies. I put them into winter quarters on Nov. 15, and removed them from the cellar, April 10, making about 145 days in the cellar without a flight. There is but little spotting of the hives; all are in fine condition and strong, excepting about 6 which are a little weak, but still are from fair to good colonies. All are gathering natural pollen, to-day, from willows and soft maples, the first this season. The thermometer indicates from 78° to 82°, and it is raising quite briskly this evening, at 8 o'clock.

U. E. DODGE.

Fredonia, N. Y., April 15, 1883.

How to use Bee Papers.

I think the printers have scarcely followed "copy," or I have made a strange blunder in my communication, published in the BEE JOURNAL, March 28, page 166, third paragraph. I intended to have written: "Any man who cannot make his business pay for a good journal published in the interest of that business, had better quit the business, etc.," or words to that effect. It now, however, reads: "Any man who cannot make his business pay had better quit the business, etc." You will at once

see the difference. The latter quotation, I presume, goes without asking by the necessities of the case, and does not need a special communication to state it, but while the former may be equally as true, yet it is so often in practice ignored as to need a reminder.

R. J. KENDALL.

Austin, Texas, March 30, 1883.

[It was printed as written in the copy.—Ed.]

Bees Confined 159 Days.

On page 180, Mr. McKay says who can beat 130 days without a flight? Well, I can. My bees have been in the cellar 159 days without a flight, and have some 10 days more to remain, at least. All answered to the roll call to-day, "21 in number;" loss, thus far, none. The dead on the floor can all be put into a two-quart measure. The above success is due, in a great measure, to the AMERICAN BEE JOURNAL, of which I have been a constant and interested reader for three years, and never expect to do without it as long as I keep bees. I use chaff mats, and am a strong believer in cellar wintering.

D. L. HERRICK.

Brattleboro, Vt., April 15, 1883.

A Swarm Went to the Woods.

I had 4 colonies of bees in boxes and barrels. Three of them I transferred more than a month ago, in the ordinary way. The boxes broke, and induced robbing, and I had so much trouble that I determined I would let the fourth wait and swarm. But seeing Mr. Heddon's plan, I concluded to try it, especially as the weather was warm, apples, clover, etc., blooming, and several colonies of my neighbor's bees had swarmed during the last few days. I very soon drove the bees into the hive filled with comb foundation; they remained several hours, and took their departure to the woods. I hope others may profit by my experience.

A SUBSCRIBER.

Omega, La.

Stinging and Dislike of Bees.

The bees have a natural dislike to me; they come for me quickly, even when walking in the yard, but not at work with them. One sting will sometimes almost cause me to faint. The rule, that the more a person gets stung, the less it hurts, does not hold good with me; the pain is as severe as it was five years ago. I wear veil and gloves, and have a Bingham smoker, but I get stung often. To allay the pain, after the sting, wet clay is the best thing I have ever tried. The best antidote I have ever tried is whisky; two teaspoonsful before I go to work with the bees. I am not used to whisky, and do not want to be; I hate it. Will some of the readers of the JOURNAL tell me what, if anything, I can put on my clothes to pacify them; and what is the best antidote besides whisky, and oblige one who cannot follow hard labor, and do not want to throw away what it has taken 15 years to learn.

Riverton, Iowa. J. H. STEPHENS.

Convention Notices.

The Mahoning Valley bee-keepers will hold their 13th meeting in the Town Hall, at Berlin Centre, Ohio, on May 5. All bee-keepers, and the public in general, are invited to attend. Do not forget to bring your wives, children, and a well-filled lunch basket. We expect a grand meeting.

L. CARSON, *Pres.*

H. A. SIMON, *Sec. pro tem.*

The semi-annual meeting of the Western Bee-Keepers' Association will be held at Independence, Jackson County, Mo., on Saturday, April 28, 1883, at 10 a. m. Papers prepared for the occasion by the president, secretary and others will be read, and matters of general interest to bee-keepers discussed. A general attendance of persons interested in bee-culture is requested. The present membership of this Association control 2,000 colonies of bees.

S. W. SALISBURY, *Sec.*

Kansas City, Mo.

J. A. NELSON, *Pres.* Wyandotte, Kas.

Quite a number of the leading bee-keepers of Missouri and Kansas met at the Court House, in Independence, Mo., December 23, 1882, and organized a bee-keepers' convention, which was named the "Western Bee-Keepers' Association," by electing the following officers for the ensuing year: Jas. A. Nelson, of Wyandotte, Kans., President; L. W. Baldwin, of Independence, Mo., Vice-President; S. W. Salisbury, Kansas City, Mo., Treasurer. The Association passed a resolution to invite all bee-keepers within a convenient distance, to meet with us at our next meeting and lend us their councils. Adjourned, to meet again at Independence, on the last Saturday in April next, at 10 o'clock, a. m. J. D. Meador, P. Baldwin, C. M. Crandall, *Committee.*

The spring meeting of the Western Michigan Bee-Keepers' Association will be held at Supervisor's Hall, Grand Rapids, April 26, at 10 a. m.

F. S. COVEY, *Sec.*

Coopersville, Mich.

The Union Bee-Keepers' Association will meet in Grange Hall, Eminence, Ky., on Thursday, April 26, 1883. All bee-keepers, and the public generally, are invited to be present.

G. W. DEMAREE, *Sec.*

Christiansburg, Ky.

There will be a meeting of the bee-keepers of Western New York and Western Pennsylvania, to adopt a constitution and by-laws, elect officers, etc., for the Western New York Bee-Keepers' Association, on April 28, 1883, at Fredonia, N. Y., opening at 10 o'clock a. m. All bee-keepers are cordially invited to attend. Discussions on bee-culture, etc. Suitable rooms will be provided.

U. E. DODGE, *Acting Sec.*

The Tuscarawas Valley Bee-Keepers' Association will hold their next meeting in the Town Hall, Coshocton, O., on Wednesday, May 2, at 10 a. m. All bee-keepers are requested to be present.

J. A. BUCKLEW, *Sec.*, Clarks, O.

The spring meeting of the Cortland Union Bee-Keepers' Association will be held in Cortland, N. Y., on Tuesday, May 8, 1883.

M. C. BEAN, *Sec.*

The Iowa Central Bee-Keepers' Association will hold their semi-annual meeting at Winterset, Iowa, on Friday, May 11, 1883. All interested in anything pertaining to bee-culture are invited to attend, and bring anything that will be of interest to the bee fraternity.

J. E. PRYOR, *Sec.*

A. J. ADKISON, *Pres.*

Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL,
Monday, 10 a. m., April 23, 1882.

The following are the latest quotations for honey and beeswax received up to this hour:

Quotations of Cash Buyers.

CHICAGO.

HONEY—The nominal price of extracted is 7c. for dark and 9c. for light—here. The supply is abundant and sales are slow.

BEESWAX—None in the market.

AL. H. NEWMAN, 923 W. Madison St.

CINCINNATI.

HONEY—There is no excitement in the honey market, but sales are fair to our regular trade. Offerings are plentiful of extracted and comb honey. Extracted brings 7@9c. on arrival. The sales of comb honey are very slow, although there is a large supply of first-class quality on the market. It brings 12@15c. on arrival.

BEESWAX—Comes in slowly and brings 20@30c per lb., according to quality. CHAS. F. MUTH.

Quotations of Commission Merchants.

CHICAGO.

HONEY—The demand is light and it is not now probable that all of the comb honey can be sold before a new crop comes. Prices are very irregular and generally low; 15@18c. for white, and dark unsalable. Extracted, very little trade is being done in it. 7@9c. is about the market.

BEESWAX—35@36c.

R. A. BURNETT, 161 South Water St.

SAN FRANCISCO.

HONEY—Buyers are readily obtained for choice comb or extracted at full figures, but off qualities meet with slow sale.

White comb, 14@17c.; dark to good, 11@13c.; extracted, choice to extra white, 8@9@9½c.; dark and candied, 5@7½c.

BEESWAX—We quote 30@33c.

STEARNS & SMITH, 423 Front Street.

ST. LOUIS.

HONEY—Very quiet; dull. Comb at 14@16c.—some inferior sold at 10c.; strained at 6½@7c., extracted at 7½@8½c., lots in small packages more.

BEESWAX—Scarce and wanted at 35c.

W. T. ANDERSON & Co., 117 N. Main Street.

CLEVELAND.

HONEY—Is a little lower, and at the lower price it has moved off a little better of late. 1-lb. sections of best white sold at 18½@19c.; second grades, 1-lb., 17c.; 2-lb. sections a little slow at 17@18c. Extracted very dull at 9@11c.

BEESWAX—None in market.

A. C. KENDEL, 115 Ontario Street.

BOSTON.

HONEY—Our market is fairly active. We quote: ¼ lb. sections at 30c.; 1 lb. sections, 22@25c.; 2 lb. sections, 30@22c. Extracted, 10c. per lb. Good lots of extracted are wanted in kegs or barrels.

BEESWAX—Our supply is gone; we have none to quote.

CROCKER & BLAKE, 57 Chatham Street.

Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

Our Premiums for Clubs.

Any one sending us a club of two subscribers for 1 year, for the Weekly, with \$4, will be entitled to a copy of Bees and Honey, in cloth, postpaid.

For three subscribers, with \$6, we will send Cook's Manual, in paper, Emerson's Binder for the Weekly, or Apiary Register for 50 colonies.

For four subscribers, with \$8, we will send Cook's Manual in cloth, or Apiary Register for 100 colonies.

For five subscribers, with \$10, we will send the Apiary Register for 200 colonies, Quinby's New Bee-Keeping, Root's A B C of Bee Culture, or an extra copy of the Weekly BEE JOURNAL for one year.

To get any of the above premiums for the Monthly BEE JOURNAL send double the number of subscribers, and the same amount of money.

Mr. James Heddon announces on another page that he cannot supply any more Hives, etc., in the flat. All interested should notice the advertisement.—*Adv.*

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts each, or \$8 per 100.

Do not let your numbers of the BEE JOURNAL for 1882 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

Honey as Food and Medicine.

A new edition, revised and enlarged, the new pages being devoted to new Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price of them low to encourage bee-keepers to scatter them far and wide. Single copy 6 cents, postpaid; per dozen, 50 cents; per hundred, \$4.00. On orders of 100 or more, we print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit.

An Instantaneous Light.

Such in a word is the unique apparatus on exhibition at the rooms of the Portable Electric Light Co., 22 Water Street, Boston. It occupies the space of only 5 square inches, and weighs but 5 pounds, and can be carried with ease. The light, or more properly lighter, requires no extra power, wires or connections, and is so constructed that any part can be replaced at small cost. The chemicals are placed in a glass retort; a carbon and zinc apparatus, with a spiral platinum attachment, is then adjusted so as to form a battery, and the light is ready. The pressure on a little knob produces an electric current by which the spiral of platinum is heated to incandescence. The Portable Electric Light Company was recently incorporated, with a capital of \$100,000, under the laws of Massachusetts. The usefulness of the apparatus and the low price (five dollars) will no doubt result in its general adoption. Some of the prominent business men of the State are identified with this enterprise. In addition to its use as a lighter, the apparatus can also be used in connection with a burglar-alarm and galvanic battery. — "Boston Transcript," Dec. 30.

The Apiary Register.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it.

For 50 colonies (120 pages).....\$1 00
 " 100 colonies (220 pages)..... 1 50
 " 200 colonies (420 pages)..... 2 00

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

Postage stamps, of one, two or three cent denomination, accepted for fractional parts of a dollar; but money is preferred.

Will the various manufacturers of the Standard Langstroth hive please send circulars giving accurate dimensions, as made by them, to S. X. Clark, Delavan, Wis. The result as to the different sizes will be published in the AMERICAN BEE JOURNAL.—adv.

New Catalogues and Price Lists.

We have received the following new Catalogues and Price Lists of Bees, Queens or Apiarian Supplies:

G. B. Jones, Brantford, Ont.
 Elvin Armstrong, Jerseyville, Ill.
 Geo. W. Baker, Lewisville, Ind.
 Dr. Wm. R. Howard, Kingston, Tex.
 W. G. Russell, Millbrook, Ont.
 J. H. Tilley & Bro., Castle Hill, Me.
 Thos. J. Ward, St. Mary's, Ind.
 C. R. Mitchell, Hawkinsville, Ga.
 G. H. Knickerbocker, Pine Plains, N. Y.
 A. C. Kendel, Cleveland, O.—field, garden and flower seeds.

In Mr. S. Corneil's excellent article on "Ventilation of Bees," in last week's JOURNAL, on page 200, an omission was made, when putting it in type. In the second column, 28th line from the top, after the period, add the following sentence: "It is just so with the air."

Sample Copies of the AMERICAN BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

On the next page may be found the advertisement for a "comb foundation fastener," by D. C. Talbot, of Elroy, Wis., to which attention is invited.—adv.

Special Notice.—We will, hereafter, supply the Weekly BEE JOURNAL for 1883 and Cook's Manual in cloth for \$2.75, or the Monthly and Manual in cloth for \$1.75. As this offer will soon be withdrawn, those who desire it should send for the book at once.

Golden Italians Again!



One Golden Italian Queen, warranted purely mated, \$1.50. One purely mated and tested, \$2.50. One pure Queen, not warranted, \$1.00. All the above Queens are of the finest stock in the country. I sold over 300 last season, and had but one complaint. Full colonies ready to divide, for \$10.00; safe arrival guaranteed.
 L. J. DIEHL, BUTLER, IND.

E. T. LEWIS & CO., Toledo, Ohio, Manufacturers of the U. S. STANDARD Honey Extractor (new improvements), and all other Apiarian Supplies. Send for circular. 17A 5Btf

BEE-KEEPERS, before ordering your APIARIAN-SUPPLIES send for our large illustrated catalogue, sent free to any address.
 E. Kretschmer, Coburg, Iowa.
 13A 2215B4t

1883 ITALIAN QUEENS. 1883 Still they go—Bees for business all ready to ship. Send for our new Circular of Queens, full colonies and nuclei; it tells how to introduce queens.
 T. S. HALL, Kirby's Creek, Jackson Co., Ala.
 16A 2t

Bee-Keepers' Handy Book,

Or, 22 Years' Experience in Queen Rearing.

Opinions of Eminent Apiarists of its value:

From Geo. W. House, Fayetteville, N. Y.—"The information gained by a careful study of the new method of Queen Rearing, I consider worth \$100 to me. It supplies a long felt want to every Queen breeder and dealer, and is invaluable to any bee-keeper."

From James T. Norton, Winsted, Conn.—"I have read your book with much satisfaction and profit; it is written concisely and to the point. It should be in the hands of every bee-keeper."

From Rev. D. D. Marsh, Georgetown, Mass.—"Your book on Queen Rearing has been received. I am very much pleased with it. It is refreshing to see how frankly you have divulged the well-earned secrets of your long experience. Your book contains a great deal of that information, which those who have already taken the 'first lessons' in apiculture will find new and valuable."

It will be remembered that Mr. E. T. Flanagan, of Belleville, Ill., went to Kenner, La., in March last to rear early Queens. After receiving the book he wrote me thus—"I would have cheerfully given \$50.00 to have had your book and apparatus here when I first came. I am rearing 300 Queens."

From L. C. Root, Mohawk, N. Y., and one of the most prominent apiarists in America.—"Your book has been received. Its title, 'TWENTY-TWO YEARS' EXPERIENCE IN QUEEN REARING,' is enough to convince any bee-keeper that they cannot afford to be without it. Good Queens is the rock upon which bee-keeping rests. I predict a large sale for the work."

From J. M. Hicks, editor of the bee department, American Grange Bulletin. Mr. Hicks is well known to nearly all bee-keepers in the West—"Book received. I pronounce it the best work of the kind, of American publications. I consider it a perfect gem for the practical bee-keeper, and should be in the hands of every apiarist."

Until May 1st the book will be sold for \$1.00 per copy. After that date, \$1.25 per copy, handsomely bound in cloth, and \$1.00 bound in paper. Fractionable parts of a dollar can be sent in postage stamps.

Our new circular and price list of Queens for 1883 contains 32 pages, and is illustrated to show our new way of rearing Queens. Send your address on a postal card for it.

HENRY ALLEY, Wenham, Mass.

FOR EXCHANGE.

Comb Foundation Machine for pure Italian Bees. Address, S. LONGLEY, CINCINNATI, O.
 In perfect order. 17A 1t.

The Bee-Keepers' Guide,

OR, MANUAL OF THE APIARY.

9,000 SOLD IN SIX YEARS.

10th Thousand Just Out.

More than 50 pages, and more than 50 fine illustrations added. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the world.

I had hoped and expected to make the price one dollar, and it has been so advertised by Mr. James Heddon and in Alley's new book; but owing to the increased size and expense, this is impossible.

PRICE, BY MAIL, \$1.25.

Liberal discount to dealers and to clubs.

A. J. COOK,

Author and Publisher, Lansing, Mich.

1000 COLONIES of Italian and Hybrid bees for sale in Langstroth and Simplicity hives.

Three-Frame Nuclei

a specialty. Safe delivery guaranteed. Write for particulars and special rates to

FLANAGAN & ILLINSKI,

Box 819, BELLEVILLE, St. Clair Co., ILL.
 17A 4t 5B2t

Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.
 10A 19t J. VANDERVORT, Lacyville, Pa.